



The Monthly Newsletter of the Surrey Amateur Radio Club

October 2010

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The SARC Communicator is published monthly for members of the Surrey Amateur Radio Club.

SARC maintains a website at www.ve7sar.net that includes club history, meetings, news and other information.

A New 3-Element SteppIR For VE7IO's Home Station

After much procrastination I decided that it was time to replace my 25 year old 204 BA monoband yagi and go for a more up to date antenna system. I spent considerable time comparing a 10 element log periodic to a 3 element SteppIR and finally settled on the SteppIR based on two main reasons. Firstly, I liked the 180° switching which allows me to work stations that call on the back of my beam which happens many times while contesting. Secondly, the SteppIR gives me 40 meters as a rotatable dipole which is also very nice to have when working 40 meters.



The antenna was purchased while we were in Dayton this year and it was finally ready to pick up on September

10th. Ken, VE7BC, and I drove down to Bellevue WA and toured the factory while picking up the antennas, Ken has one as well.

I had plans to go on a hunting/fishing trip on September 18th so I had one week to get the antenna put together and raised to the top of the tower. I started right away on the assembly and had it completed by Wednesday I then arranged for a



crane truck to come in on Friday around 1:00pm to raise the antenna.



I had arranged for Kjeld, VE7GP, Jay, VE7OFH, Fred VE7MPI, Marcy, VE7JT, Mike VE7CLE and Alan VA7BIT to be on site for 12:30 as

the truck driver said he would try to get here as close to 1:00pm as possible. Well the crane truck arrived at 11:45am and fortunately Kjeld and Mike showed up early as well so we were ready. The crane truck driver was very experienced and he had the antenna on the way up while I was climbing the tower to get into position.



The entire process from the time he arrived on site until he was finalizing the invoice was 45 minutes and completing the installations was very smooth.



Once the antenna was in place I replaced the underground pipe with new 4" sewer pipe and all new cabling into the shack.

Al Munnik did the digging and laying the pipe then we pulled in the cables. A word of advice if you are installing multiple cables into a pipe pull them all in together as doing it one at a time has caused the cables to bind, they are in now but if I have to replace them I will take everything out and pull all the cables at one time. There is one run of RG 213, one of LMR 400, one rotator

(Continued on page 8)



Meeting Minutes

Gord Kirk VE7GRK—SARC Secre-



September 2010 General Meeting

1. The general meeting was started at 7:24 pm President John VA7XB. 17 members were in attendance at the Surrey PEOC.

2. Don VA7GL reported the Flea market held over the summer with LARA. Thirty tables were sold and approximately 150 buyers were present. Net profit for both clubs was \$1320.00. Raffle winners were VA7FFK, VE7EWB and VA7GAB.

A full report is on the website. Tentative dates being looked at for next year are Aug 21 or 28th. The club voted to plan to do this again next year suggest the 21st for a the date.

3. Meeting Location

John VA7XB led a discussion of various meeting location options and their costs. Options included the current location (the PEOC) a fire hall, or the new Fine Arts building located near 72 and King George Hwy. After a discussion on costs and Pros/Cons of the various venues the group decided that the current location was still the best location.

4. Field Day

An advance discussion regarding the location for the 2011 field day site occurred. It is SARC's turn to host the event and a better location than Redwood Park was discussed. Millennium Park was discussed as an option however there is a cost for this location. We will apply for a community grant to possibly help with payment for a location. Gord VE7GRK, Kjeld VE7GP and John VA7XB will look for other sites within Surrey.

5. Financial Report

Paulette VE7VPE gave a report on her review of the clubs finances. She reviewed and audited the club records and found no discrepancies. Book keeping changes have been implemented to ensure the financial statements follow government standards. Fixed assets are now included in the statements. These assets are treated as having a 5 year life-span for equipment depreciation.

A motion to accept the financial statements was made by Kelvin VA7KPH and seconded by Rob VE7CZV. Motion carried.

6. The current bank balance was presented by Scott VE7HA. A total in these accounts is \$3711.56 (2625.56 and 1086.00)

7. The lottery grant application has been completed and sent in to meet the grant application deadline.

8. Repeater update

Surrey Fire Services has obtained a new location on the top of the Kuhn towers to relocate the repeater to. In addition they have provided funding for new antennas for this site. We will be able to locate a 2m, 440 and 220 repeater at this location. Power, internet access, repeater racks/cabinets and mounting brackets for antennas are all available at the site.

9. The older silver tower trailer was sold to the North Shore club for \$325.00. It was noted that Al Neufeld VE7CDG originally donated this trailer to the club and a special note of thanks to him (present at the meeting) was made.

10. The club has been donated a tower and beam (TH7) which we must take down. Sept 30 Thursday was a planned date for this.

11. Anton VE7SSD is organizing on behalf of the club a RDF (foxhunt) in conjunction with BC Radio Sport. This is being done as part of Delta club's ComFest Saturday Oct 2 12:30-3:30pm. It will be held in the Watershed park located off of Scott (120th) and Hwy#10. There will be two classes of competition, Novice and Advanced. There is no charge (by donation) for this event please register with Anton

12. Ham Classes will start Thursday September 30th at Surrey Fire Hall #9 (in the hall not the training center as it is under going renovations). Volunteers to assist with the class are needed. Please let John VA7XB know if you can help with any of the 9 sessions.

The cost is \$120.00 if you know someone interested in taking the class.

Next Meeting will be at 7:00pm Wednesday Oct 13, 2010 at the Surrey PEOC.

SARC EXECUTIVE FOR 2010-2011

PRESIDENT
John Brodie VA7XB

VICE PRESIDENT
Don Hamilton VA7GL

SECRETARY
Gordon Kirk VE7GRK

TREASURER
Scott Hawrelak VE7CNR

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Kelvin Hall VA7KPH
Fred Orsetti VE7IO
John Schouten VE7TI
Gary Skett VE7AS
Chris Zetner VA7CMZ

SEPARS Report

Fred Orsetti VE7IO



Cross Border Communications Group Meeting

John Schouten, VE7TI, attended the Cross Border Communications Group meeting for SEPARS on September 25th and reports there were 19 delegates in attendance. We had 7 representatives from BC representing Surrey, Coquitlam, Chilliwack, Delta and Vancouver Island.

The aim of this quarterly meeting is to develop agreements between Canadian and U.S. repeaters and to expedite the delivery of communications services in the event of a major disaster. This group has been meeting for some years on an informal basis and has developed a superb working relationship.

Ian Procyk and Geoff Armstrong did a presentation on BCWARN. Other agenda items covered Emergency communication events between BC and WA. The next meeting will be at the Surrey PREOC in December.

Monthly EmComm Exercise With Langley

On Saturday the 26th Marcy VE7JT, Jim VE7HUR and Jay VE7OFH passed voice and digital (AIRMAIL) messages between Langley's EmComm group of communicators. The planned Emergency Simulation Exercise went well and we gained valuable experience described below.

With only one other station (Langley's EmComm) our small team of one station manager, one net control operator and one message handler was adequate for the task and performed smoothly. Additionally, another operator, VA7BIT, stood by on frequency with the ability to operate mobile should there have been communications difficulties.

We EmComm operators demonstrated traffic (message) handling using our new equipment and both analog and digital modes of voice and data. We did not demonstrate three functions that need consideration:

1. Access to our station when paid personnel may be absent due to some catastrophe where we might find the Fire Hall locked up.
2. Access to Langley EmComm under unscheduled, unplanned conditions when time and frequency might not be previously established.
3. Operation of the new DStar mode called D-RATS for want of training and practice. These latter two demonstrations become the objective of future drills.

Issues to be resolved include:

- SEPARS was unable to print airmail messages from the

airmail station. Jim had a memory stick and we used this to copy data from the airmail station, hand it to the net control station, which had a printer attached, to print messages from there. This problem will be passed on to Drew Elvins and Alan Saunders for resolution.

- Procedure to find Langley EmComm and other stations when needed, without schedule. This is a well established protocol among Radio Amateurs and only needs constant awareness especially with new operators.
- Practice (and training) operating the new digital modes, especially DRATS. During the drill we were unable to use DRATS as we had predicted during planning with Langley due to our absence of training.

Nevertheless, as expected, using our ample supply of experience and flexible equipment, we performed the exercise as planned and gained valuable insight anent future improvements.

Exercises with Langley are scheduled each month on the 4th Saturday and may be subject to change. Your participation would be welcomed as we have to ensure that the stations are fully operational and that we have capable operators to run them. The next exercise is planned for October 16th.

Thank you for your support, 73 - Jay

October 6th SEPARS Quarterly Meeting

The 3rd quarter meeting was held at the South Surrey Recreation Centre. Those present discussed the format of the weekly net and in particular the 'roll call' option and whether that took more time than necessary. It was decided that the roll call was a useful addition but that Net controllers be asked to speed the process by calling up to 3 call-signs at a time and without using phonetics. The goal will be to complete the roll by 1945 hrs to leave sufficient time for reports and a training message.

There will also be an attempt to cull the SEPAR roster to eliminate members who are no longer active so that we may focus on those who do participate in events and activities. Fred VE7IO will discuss the latter with the Surrey Emergency Program.

The Youth program was discussed and we will attempt once more to gain the participation of Surrey teachers to repeat the successful visit earlier this year at Pacific Heights Elementary. Those present felt that it was a useful program to educate kids about emergency preparedness and the role of Amateur Radio.

After coffee there was a presentation on Radio Mobile propagation modeling software by John VE7TI. The door prize was won by Dave Gillis VE7BX.

'Net' Working

Internet Resources for Hams

Fonts, Fonts, Fonts

If you're like me, more available fonts on your computer permit you to be a bit more creative. In the Windows world, there are many free fonts available via the Internet that permit you to adapt your writing, be it email or otherwise, to any of a number of styles.

The link below will take you to an article with links to 45 free handwriting style fonts. If you like one, download it, right-click on the .TTF file and select 'View'. When the viewer comes up select 'Install' from the menu.

<http://savedelete.com/45-creative-handwritten-fonts-for-free-download.html>

I've also had occasion to use a Morse code font. No, not the chintzy --.- .-. -- but real Morse .. --- --- --- ---

(Translation: If you want that one, go to)

http://www.fontmenu.com/site/_Morse.html

And one of my favourite tweaks of all: slashed zero fonts. I hate fonts that show little difference between zeros 0 and the capital letter O, particularly in model and serial numbers. To eliminate this confusion, take a tip from our European counterparts whose standard fonts generally slash the zero Ø. To download a collection of several slashed zero fonts, click:

http://www.wm8c.com/hamfonts_collection.zip

Sights and Sounds

The video of a tower worker "free climbing" at heights over 1,700 feet has been making the rounds despite the best efforts of its

originator to expunge it. Free-climbing is a violation of safety and workplace rules. Nevertheless, hams are agog over it and if there is one benefit, the ensuing discussion reinforces the attitude of "safety first" and emphasizes the need for proper climbing gear, such as a fall-arrest harness and being attached to the tower 100% of the time. Not a job I'd volunteer for but you can see it here:

<http://video.yahoo.com/network/101149635?v=8244494&l=5144241>

News You Can Lose

The birthplace of the laser printer and the graphical user interface for computers that presaged the Macintosh, Xerox's [Palo Alto Research Center \(PARC\)](#) is celebrating its 40th anniversary this year. One of the nation's premier research facilities, PARC is responsible for many [innovations](#) that we now take for granted as standard features.

A Safer Way to Surf the Web

Last week a Windows web publication, Win7News, discussed the fact that most malware today infects our computers via malicious web sites. One way to avoid it is to stay off the web, but for most of us, that's not an option. A better way to deal with it is to use a DNS service that offers built in protection from bad sites. ClearCloud DNS, offered at no cost by a company known as GFI, gets the job done with minimal effort on your part.

Check out the article about ClearCloud (and sample the Windows 7 newsletter if you haven't already) at

<http://www.wxpnews.com/4VOWRG/100921-win7news>

QRM

News You Can Use

Notice that [blue text](#) throughout The Communicator? They're hot links to web sites or email addresses. Click to follow them. Hovering over some pictures will reveal links as well.

A Blast from the Past: The Internet is only a passing fad

It's always interesting to look back in time at how right some folks were in their predictions - and how wrong others were. Here's a link to a Newsweek article from 1995 that shows just how much the Internet has changed since this assessment was made. Our favourite line: "Even if there were a trustworthy way to send money over the Internet - which there isn't...".

Today I feel safer entrusting my credit card to Amazon than to the waiter at the restaurant, who disappears with it into the back of the building and does who-knows-what with it. So, do you think most of these comments still hold true or have technological innovations that we didn't even dream of a decade and a half ago make them obsolete? Read it here:

<http://www.newsweek.com/1995/02/26/the-internet-bah.html>

ARDF World Championships

Congratulations to Amel Krdzalic VA7KBA achieved 49th place recently in Croatia with a run time of 99'11 to locate the 5 foxes.

SARC-DELTA ARC ComFest Fox Hunt Final results

Novice Category 1st place - Ian Saari from GVOC (Great Vancouver Orienteering Club). 2nd place - Jay VE7CDG from DARS (Delta Amateur Radio Society). 3rd place - Thomas Nippen from GVOC (Great Vancouver Orienteering Club)

Advanced Category 1st place - Jan VA7VJ from SARC (Surrey Amateur Radio Club). 2nd place - Alex VA7ACG from MRARC (Maple Ridge Amateur Radio Club). 3rd place - Keith VE7MID from BARC (Burnaby Radio Amateur Radio Club)



ARES Turns 75!

The Amateur Radio Emergency Service

The Amateur Radio Emergency Service (ARES) in the United States will be celebrating its 75th anniversary from September through December 2010.

In Canada, emergency service activities in each RAC Section are under the direction of the Section Emergency Coordinator (SEC), who is appointed by the Section Manager (SM). The radio amateurs in each community within the Section register their facilities with the local Emergency Coordinator (EC), who is also appointed by the SM or SEC. In order to provide better support in areas where there is a large number of EC appointments, the position of District Emergency Coordinator (DEC) is appointed by the SM. Being RAC officers, these appointments must be RAC members.

This program of the ARRL and RAC - the North American national associations for Amateur Radio - has provided "ham radio" emergency communications for agencies such as the American Red Cross, Salvation Army, countless Emergency Operations Centers and other responders in the worst of times. In events from ice storms to Hurricane Katrina and Haiti, when normal communications systems were down or overloaded, the Amateur Radio operators of the ARES programs filled requests for communications aid.

Over the years the program name and equipment has changed but the vision remains. The modern communications nets that ARES can quickly create to blanket whole regions - without the need for other infrastructure - remain critical in emergency planning. In the first hours and days of a major event, Amateur Radio is often the source of initial information on the type, scope and reactions needed to save lives.

The first mention of an organized Amateur Radio emergency response organization appears in the September 1935 issue of QST Magazine. "At least one amateur station in every community should be equipped with auxiliary station equipment for use in an emergency." With those words by ARRL Communications Manager F.E. Handy and Assistant Communications Manager E.L. Battery, the ARRL Amateur Radio Emergency Corps (AREC) was born.

Much like today, Corps members were expected to reach out to served agencies. Corps stations were requested to contact "local Red Cross officials, railroads, military units, police departments, representatives of press associations and the like" and notify them of their ability to assist during times of emergency. Cooperation with served agencies was critical for the success of the Corps just as much as it is today with ARES.

Some of the major responses needing ARES Amateur Radio operators for emergency communications in recent years include these well-known events:



Earthquake in Haiti - 2010, Hurricane Ike in Texas—2008, Earthquake in Hawaii—2006, Flooding in North-eastern States—2006, Hurricanes Katrina, Wilma and Rita—2005, Wildfires in Texas, Oklahoma and New Mexico—2005, Hurricanes Charley, Frances, Ivan and Jeanne—2004, Tsunami in Asia—2004, Earthquake in Central California—2003, Hurricane Isabel—2003, Northeast Blackout—2003, shuttle Columbia Recovery Effort—2003, Wildfires in Colorado—2002, Flooding in Kentucky—2002, World Trade Center, Pentagon and Western Pennsylvania Terrorist Attacks—2001, Tropical Storm Allison—2001, and the fires in Los Alamos, New Mexico—2000.

If you're an ARES member, give yourself a pat on the back. To learn more about ARES, go to www.rac.ca/en/rac/public-service/ares/

A new official RAC ARES national identification card has been created, if you're on the Internet, please click [here](#).

The fastest way to turn an emergency into a disaster is to lose communications. In events from ice storms to Hurricane Katrina and Haiti, when normal communications systems were down or overloaded, the Amateur Radio operators of the ARES programs filled requests for communications aid.

Application Notes

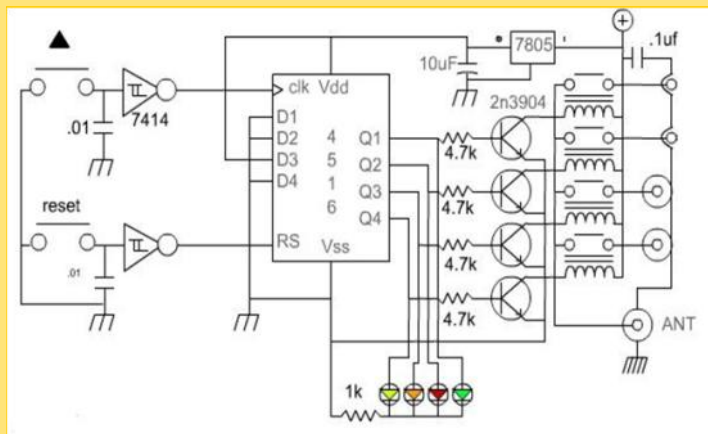
Gary Skett VE7AS



The Radio Switch

Finally I have found a use for a bunch of old DIP-style RF relays I acquired at a swap meet years ago. These relays are sealed and RF shielded with low contact capacitance. Perfect for QRP HF up to low power VHF frequencies. They are 12 volts DC and have a fairly decent coil resistance, although I wish they were latching style.

An antenna [or in this case radio] switch using relays isn't without its drawbacks. One consideration is power consumption. It's minimal when you select the "no relay" or direct position. The other of course is transmit output power. This is a QRP application only.



The radio inputs are shown on the right side of the schematic, 3 radio inputs in this application are VHF related with one being a 10Mhz. WWV receiver I built a decade ago or so. As the single scanner style antenna used is very broadband, SWR wasn't really an issue for the 2m transceiver. The transceiver is on position Q3 which was my reset position, so it could be selected with the reset button.

Circuit description:

This switch doesn't just select single outputs but does a binary count through them all, so 2 or more can be connected at the same time. Caution must be used when using the VHF (2 meter) transmitter so one of the buttons has been designated as an "instant set" to that output only. (D3 held high) The LEDs being switched on with the relays show the status. **Red alone must be on for transmitting.**

As shown in the finished front panel I have the two buttons for selection and a reset to take it back to the "transmit" mode. I designated the LEDs V for VHF, S for scanner; W for a 10Mhz WWV receiver and X was for a weather fax receiver experiment.



I thought of adding an RF sensor, but by the time it kicks in the preset, the rest of the receiver would have been cooked. A line off the radio's TX output may be suitable, as the transition to RF is not immediate. I'll be thinking about that one.

The 7414 gates are Schmidt triggers, famous for their ability to de-bounce switches. Once the zero crossing has occurred as a button is pressed, it must be a certain voltage above that to flip back to its original state. The caps are to ensure the slope is smooth.



The clock input is pulsed with each press of the switch. One press of the button increments the binary count by one.



As shown in this photo the switches are salvaged conductive rubber contact style from a cordless telephone. They were also round, which made it easy to make holes in the chassis.

The small proto-board is held on with tiny (2-56) machine screws that compress the rubber to the aluminum. I just hand etched the contact points and it works fine.

This project took a day once I gathered all the parts out of bins, boxes and drawers... a bit of reading on the 7414 IC to find an appropriate app note. Lots of testing to watch the LEDs count up from all off to all on in binary, and then some SWR testing to see how it would handle a transmit signal.

CN Day

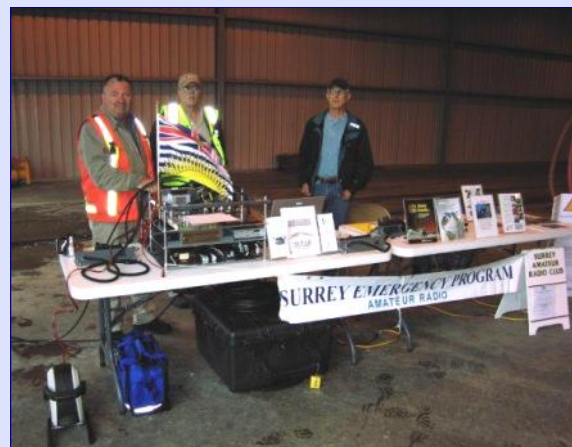
An estimated 1,000 people were on hand Sunday, September 19, when CN's Thornton Yard employees in Surrey hosted their annual Family Day and Open House.

The popular event regularly attracts thousands from the community though this year's event was tempered by rain and construction in the area. This year's edition featured games, rides, displays and tours, with plenty of refreshments, face painting for kids and loads of door prizes.

Among the exhibitors were several who had displays, games or tips related to safety: the BC Ambulance Services and Translink Police; the Surrey Emergency Program; and of course SEPAR and SARC volunteers.

CN and BC Rail Police showcased the Operation Lifesaver program. For rail aficionados, model railroad clubs featured a variety of displays and operating models. The West Coast Heritage Society offered motor car rides courtesy of George Hope and friends, and CN, in conjunction with Rocky Mountain Rail Tours provided coaches for train rides.

Hats off to all of the CN employees, family and friends who volunteered their time to make this family event such a resounding success and thanks too of course to the SARC and SEPAR members who volunteered their time.



CN Days SEPAR Crew. L>R Bill Gipps, Kelvin Hall and John Brodie. Photo by Jay Melvin

Radio-Active ORCA DX Club

An open community of common interests

The Orca DX and Contest Club (Orca DXCC) was established in Fall 2010 to serve as a community open to all amateur radio operators in BC or the BC-Washington border region with an interest in DXing and contesting.

ORCA shares unique opportunities and challenges in "working the world" from the top-left corner of North America. The Orca DXCC brings together active radio operators to share their experiences, and provide encouragement and mentoring to all who strive to one day "work 'em all" from here.

Their new Forums are open... join the discussions about the new club, let them know who you've worked, how you did in the last contest or how you're preparing for the next one.

The Tips and Tools page is a great resource chock full of information of instructional and other material to get more out of our hobby.

Join the club

The club is just forming, but it's forming quickly! All you need is a passion for DXing or contesting, and a desire to connect with others who share your amateur radio interests.

Join in, and use their new website as a radio activity resource! [Here's how to join](#)



For Sale

Yaesu FT-736R VHF/UHF Satellite all mode transceiver with VHF and UHF eggbeater antennas. Updated power supply, new CTCSS Tone Board and a rare MD-1 matching desk microphone. Includes coax cable too, once uninstalled. Older radio, but the best receiver ever on the market...a very popular radio with the satellite, ISS and moon bounce Hams.

It's one of those classic radios that no one has improved on since...\$1000, contact VE7AS gary@radiotronics.ca



(Continued from page 1)

and one SteppIR control cable in the pipe at this time. The RG 213 is a spare just in case I decide to put something else on the tower.

The antenna is now complete and I have made a few DX contacts on 40 meters and 17 meters with great success. Now I have to tidy up the operating desk and I am ready for the 2010-2011 hamming season.

My 204 BA taken down from the tower is now up at the VE7ZZZ contesting station in Prince George where it will be put to work. I had an opportunity to talk with Bob, VE7SK, who is one of the people involved with rebuilding the VE7ZZZ station. They have a superb site in Prince George and I am sure we will hear them in upcoming contests.

I have many more pictures of the antenna installation that are now being compiled into a video which I would be more than happy to show at a future club meeting.

- Fred Orsetti VE7IO



...and finally The Last Word

SARC Christmas Party

Mark your calendars! A reservation at the ABC has been made for a buffet lunch on December 11th from 11am until 2pm.

SARC Amateur of the Year

Following a tradition started a few years ago, we are looking for nominations for SARC "Amateur of the Year" award to be given out at our annual Christmas party.

If you would like to nominate a person who has given extraordinary service either to amateur radio in general, or to the Surrey Club in particular, please send John Brodie a confidential email (va7xb@rac.ca) with the name of your nominee, giving reasons why your candidate is particularly worthy of receiving the award.

Previous recipients are:

2007
Anton James VE7SSD
Fred Orsetti VE7IO

2008
John Brodie VA7XB

2009

Gary Skett VE7AS
Ken Clarke VE7BC
Kjeld Frederiksen VE7GP

Bob Pomerleau VE7JRP SK

It is with much sadness that we report to you that Bob Pomerleau VE7JRP became a silent key September 26th at Peace Arch Hospital. He had a stroke about 3½ weeks ago and had been in care since then.



Bob joined SEPARS last year and was an enthusiastic member participating in exercises and helping with meetings. Bob had many friends in the amateur radio community and was a active member of the Coquitlam ARC he will be missed by all. Our condolences to his family.

SARC Dues Reminder

If you have not yet renewed for 2011, your dues are now payable to our Treasurer Scott Hawrelak VE7CNR.

DOWN THE LOG...

SARC Monthly Meetings

2nd Wednesday (Sept-Jun)
1900 hrs local at PEP PREOC,
96th Avenue, Surrey

Weekly Club Breakfast

Friday at 0830 local
ABC Country Restaurant located
at 600 - 7380 King George Blvd.
Surrey

SARC Net

Tuesday at 2000 local
on 147.360 MHz (+) Tone=110.9.

SEPARS Simplex Net

Tuesday at 19:30 local
on 146.550MHz simplex.

Announcements & News

SARC Christmas Party
December 11th, 11am-2pm,
ABC Country Restaurant located
at 600 - 7380 King George Blvd.

On the Web ve7sar.net

Between newsletters, watch your e-mail for announcements of events, monthly meetings and training opportunities. These announcements may also be found on our web page.



SARC hosts an Amateur Radio net each Tuesday evening at 8 PM. Please tune in to the VE7RSC repeater at 147.360 MHz (+600 KHz) Tone=110.9, also accessible on IRLP node 1980 and Echolink node 496228. On UHF we operate a repeater on 443.775MHz (+5Mhz) Tone=110.9 and IRPL node 1463. Coming soon, a repeater at 224.000MHz (-1.6MHz).

VIA THE WEB

www.ve7sar.net

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